

Title (en)

Speed-change operating device for automated mechanical gearbox

Title (de)

Gangschaltvorrichtung für ein automatisiertes, mechanisches Schaltgetriebe

Title (fr)

Dispositif de changement de vitesse pour boîte de vitesses mécanique automatisée

Publication

**EP 0843112 A2 19980520 (EN)**

Application

**EP 97309234 A 19971117**

Priority

- JP 32474896 A 19961119
- US 97171697 A 19971117

Abstract (en)

The object is to provide a speed-change apparatus wherein the automatic speed change of the conventional gear transmission can be satisfactorily performed by controlling a single motor (9) and a single electromagnetic clutch (21). This apparatus includes a motor (9), an actuator gear (15), a select shaft having a select gear (17) engaging with said actuator gear, a clutch (21), and a sleeve (7) for moving in the axial direction; a shift gear (24) engaging with said actuator gear (15), and a slider connected with said shift gear (24) and connected with said sleeve through a slider bearing and further having a female screw (23A) engaging with a male screw (22) on said select shaft. When said clutch is connected and said select shaft rotates, said slider rotates without the axial movement; and at the shift operation, when said clutch is cut, said female screw may travel forward and reversely against said male screw, and said slider moves in the axial direction.

IPC 1-7

**F16H 61/32**

IPC 8 full level

**F16H 61/28** (2006.01); **F16H 61/32** (2006.01); **F16H 61/34** (2006.01)

CPC (source: EP US)

**F16H 61/32** (2013.01 - EP US); **Y10T 74/18696** (2015.01 - EP US); **Y10T 74/19251** (2015.01 - EP US); **Y10T 74/2003** (2015.01 - EP US)

Citation (applicant)

JP S6151697 A 19860314 - MEIDENSHA ELECTRIC MFG CO LTD

Cited by

US5970811A; EP0898099A3; US8714041B2; WO2006095126A1

Designated contracting state (EPC)

DE FR GB IT SE

DOCDB simple family (publication)

**EP 0843112 A2 19980520**; **EP 0843112 A3 19990714**; **EP 0843112 B1 20030122**; JP 3635385 B2 20050406; JP H10148256 A 19980602; US 5901608 A 19990511

DOCDB simple family (application)

**EP 97309234 A 19971117**; JP 32474896 A 19961119; US 97171697 A 19971117